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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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| 08/973,618 | 03/23/98 | LEIJON | 70558-278240 |

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| EXAMINER |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2834 | |

DATE MAILED: 04/13/99

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/973,018

Applicant(s)

Leijon et al.

Examiner

Enad, Elvin

Group Art Unit

2834



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-34 and 37-49 is/are pending in the application.

Of the above, claim(s) 43 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-34, 37-42, and 44-49 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

1. The information disclosure statement filed March 25, 1998, fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.
2. It is noted that claim 43 has been left blank and therefore has been withdrawn from consideration.

Claim Objections

3. Claims 2-33 are objected to because of the following informalities: Claims 2-33 being dependent claims of claim 1 should begin the first sentence with ---The--- instead of "A".
Appropriate correction is required.
4. Claim 33 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The limitations set forth in the claims do not further limit the hydrogenerator plant but instead define a procedure outside the structure of the plant.

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Claim Rejections - 35 USC § 112

5. Claims 1,4,14,16,20,24,28,31,33,41 and 45-47 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 2, reference to “the generator” is lacking proper antecedent basis. In claim 4, reference to “the flux paths” is lacking proper antecedent basis. Moreover, reference to the flux paths in the magnetic core consisting of laminated sheets and/or cast iron and/or ... is indefinite. In regard to claim 14, reference to the “stator” is lacking proper antecedent basis. Also in claim 20, reference to “the pole pitch” is lacking proper antecedent basis. In claim 24, reference to “the electric generator” is confusing and lacking proper antecedent basis. In claim 28, reference to “the electric machine” and “the electric power network” is lacking proper antecedent basis.

In regard to claim 31, reference to “all components” is unclear, and the phrase regarding the components being “earth to the same earth system” is confusing. In regard to claim 41, it is unclear what it means to have the plurality of layers being “substantially void free”.

With regard to claims 45-47, the claims only recite a function but do not provide the means or a positive limitation.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 37,41 and 42 are rejected under 35 U.S.C. § 102(b) as being fully anticipated by Nikitin et al. (USP 4,429,244).

Nikitin et al. disclose a stator for a generator comprising a housing accommodating a slotted magnetic core 2, a winding composed of two-series connected half windings 7, 8 each composed of high-voltage elements 6. The high-voltage elements 6 are placed in insulation sleeves 14 which have hollow projections on the internal surfaces and placed between the hollow projections is a thermosetting compound. The part of each insulation sleeve 14 has a cylindrical portion integral with a cone-shaped cable-type termination reinforced with current-carrying layers.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-32 and 34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Titus (USP 5,550,410) in view of Elton et al. (USP 4,853,565).

Titus discloses the claimed invention except for a teaching of having the generator provided with solid insulation, providing a semiconducting layer on the conductor, providing a

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semiconducting layer with the same coefficient of thermal expansion as the insulation layer. Titus discloses a gas turbine electrical power generating apparatus comprising of a plurality of combustion turbine generators. As seen in figure 1, the turbine **16** is directly coupled to the generator **20** by shaft **18** and can be operated at speeds higher than 3,600 RPM in order to obtain greater turbine energy conversion efficiency.

Elton et al. teach that it is known to provide a semiconducting layer in the insulation of a conductor and to connect that layer to a fixed potential in order to provide an equipotential surface on the conductor preventing corona discharge around the conductors.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided a semiconducting layer around the conductors of Titus since such a modification would prevent corona discharge, as disclosed by Elton.

10. In regard to forming the semiconducting layer with the same coefficient of thermal expansion as that of the insulation layer, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed these layers with similar coefficients since it was known in the art that the expansion rate of the two layers would be the same and this is desirable in order to prevent cracking of the insulation and wear between the two.

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11. Claims 38,39 and 44-49 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nikitin et al. (USP 4,429,244) in view of Elton et al. (USP 4,853,565).

Nikitin et al. disclose the claimed invention except for providing a semiconducting layer on the conductor.

Elton et al. teach that it is known to provide a semiconducting layer in the insulation of a conductor and to connect that layer to a fixed potential in order to provide an equipotential surface on the conductor preventing corona discharge around the conductors.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided a semiconducting layer around the conductors of Nikitin et al. since such a modification would prevent corona discharge, as disclosed by Elton.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elvin Enad whose telephone number is (703) 308-7619.

14. Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-1782. The fax phone number for this Group is (703) 305-3431 (32).



Elvin Enad
Primary Examiner
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04.07.99